

Opinion

Footprints of a Profession are Created by its Publications

When I was an agricultural engineering student, we sold bumper stickers that said "Agricultural Engineering, the Profession with a Future." I still believe that statement is true — whether it's "Agricultural Engineering" for me, "Biological Engineering" for someone else, or "Food Engineering" for my son. ASAE has made many advances, and the members of ASAE are continuing to expand the vision for what ASAE should be. But we will be mainly recognized as a profession by the footprints left by our publications.

Our scholarly publications are one of the most visible and measurable signs of our profession. ASAE's publications — Resource and its forerunner Agricultural Engineering, The Transactions of ASAE, Applied Engineering in Agriculture, and most recently, the Journal of Agricultural Safety and Health — have served our profession very well. These periodicals record our professional advancement and clearly mark the impact of our profession.

ASAE's Publications Department often goes unheralded. Yet many members depend on the Society's publications, not only for knowledge and education but also to record and document our research, extension and education activities.

I have had the honor to serve as division editor for Soil and Water for nearly four years, and devote many hours every week to keeping the manuscripts flowing (a good soil and water term). ASAE's staff has been a great asset, but the volunteers who serve as associate editors and reviewers are the real strength of our peer review process. These are the people who keep our footprints distinguished and on a straight path.

Virtually all of these volunteers must also deal with demanding jobs, which could explain the growing problem in getting manuscripts reviewed and returned on time.

In addition, some reviews are too superficial, while others are overly critical. Neither authors nor the editors are served if a review is not thorough and challenging. Nor is a highly critical review helpful if it lacks suggestions to correct deficiencies.

Authors deserve our very best effort. And since the process to accept or decline a manuscript is somewhat subjective, we need the best possible advice in making these important decisions.

The peer review process is based on the quality of the manuscript reviews. Reviewers are selected based on their professional stature and familiarity with the nature of the manuscript. Reviewers are encouraged to accept this responsibility with the highest degree of professionalism.

The review serves three purposes:

- Assist the editor in deciding the merit for publishing the manuscript.
- Provides constructive suggestions to the author(s) for improving the manuscript.
- Ensure the profession that only the highest quality information and knowledge are being advanced.

In the Soil and Water Division, we stress that reviews should have these characteristics:

Critical Evaluation. The review should evaluate the manuscript based on what was done. It must communicate the evaluation clearly, articulately and thoroughly. The recommendation should be either: "publish" (minor changes needed and no re-review necessary); "publish after significant revision" (major revisions needed and possibly a re-review); or "do not publish" (material should not be published or needed revisions would result in a substantially different manuscript).

Promptness. The review should be completed within three weeks. If more time is needed, the reviewer should contact the associate editor. If the manuscript cannot be reviewed within the specified time period, it should be immediately returned to the associate editor.

Constructiveness. The review should constructively comment on the manuscript, indicating how flaws can be corrected and suggesting mechanisms for enhancing the meri-

torious portions of the work.

Fairness and Impartiality. The review should express an open-minded and impartial view without personal bias or prejudice.

Diplomacy. Review comments should be free of inflammatory or derogatory language.

Completeness. The review should address the whole manuscript including the title; abstract; introduction and literature review; objectives of the work: appropriateness of the methods; discussion of results: conclusions (based on the results): significance of the work according to the criteria for the journal under consideration; clarity of writing style: adherence to the ASAE Style Guide, appropriate and correct use of units (including significant numerical values): appropriate use of tables. graphs and figures; clarity of graphical materials (sizes, line thickness, style, etc.); and appropriate use of statistical analysis (as appropriate to the methods).

Follow up

If you have not received a manuscript to review in some time, contact your division editor or an associate editor in your area of expertise to volunteer your services.

I also challenge administrators to find opportunities to recognize staff members who assume these duties, and to encourage them to provide responsive and thorough reviews.

I'm sure that the vast majority of ASAE members know that the scholarly publications of ASAE are the most outward and visible symbols of our profession. Let's join in the process to make our *footprints* truly reflective of *The Society for engineering in agriculture, food, and biological systems.*

ASAE Fellow Terry A. Howell, P.E., is research leader, USDA-ARS, Conservation and Production Research Laboratory, PO Drawer 10, Bushland, TX 79012-0010, USA; tahowell@ag.gov.